

THE DELAWARE^{AND} HUDSON RAILROAD BULLETIN

*The
D&H*

NOVEMBER 15, 1930

THE RAPIDS
AUSABLE CRAVE

The Tradition of Thanksgiving

By BENJAMIN FRANKLIN



THERE is a tradition that in the planting of New England, the first settlers met with many difficulties and hardships; as is generally the case when a civilized people attempts to establish themselves in a wilderness country.

Being piously disposed, they sought relief from heaven by laying their wants and distresses before the Lord, in frequent set days of fasting and prayer. Constant meditation and discourse on these subjects kept their minds gloomy and discontented; and like the children of Israel, there were many disposed to return to that Egypt which persecution had induced them to abandon.

At length, when it was proposed in the assembly to proclaim another fast, a farmer of plain sense arose, and remarked that the inconveniences they suffered, and concerning which they had so often wearied heaven with their complaints, were not so great as they might have expected, and were diminishing every day, as the colony strengthened; that the earth began to reward their labor, and to furnish liberally for their subsistence; and above all, that they were there in the full enjoyment of liberty, civil and religious.

He, therefore, thought that it would be more becoming the gratitude they owed to the Divine Being, if, instead of a fast, they should proclaim a Thanksgiving. His advise was taken, and from that day to this they have, in every year, observed circumstances of public felicity sufficient to furnish employment for a Thanksgiving day, which is therefore constantly ordered and religiously observed.



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DELAWARE AND HUDSON RAILROAD

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BULLETIN

Vol. 10

Albany, N. Y., November 15, 1930

No. 22

Headed Traffic Forces 21 Years

Retired General Traffic Manager Instrumental in Building Network of Off-line Agencies

ONE Saturday about fifty years ago, the Pennsylvania Railroad's Agent at Coburn, Pa., left his office for the week end. A young clerk and student telegrapher, receiving \$25 per month, was left on duty to handle any business or messages directed to Coburn. Shortly after noon the burly owner of a grist mill drove up with a wagon to demand a car of corn which stood on the station's siding. The car was consigned to the order of another man, with a notation to notify John Doe, (the man who was demanding the car).

The clerk knew little about bills of lading, but the agent lived at Millinburg, some distance away. Rather than make a mistake, he asked the son of another grist mill owner at Coburn what to do. He was advised not to turn the car over under any circumstances until the consignee surrendered the bill of lading. Returning to his station, the clerk put another seal on the car and told the grist mill owner that he would have to produce a bill of lading. The latter drove off in a towering rage, having been foiled in his attempt to outwit a mere boy.

Years later the clerk, WILLIAM J. MULLIN by name, as General Traffic Manager for the Delaware and Hudson Company, was faced with the

problem of writing a new set of instructions for the guidance of station agents. Because of the experience he had had thirty years earlier he was very explicit in instructing agents in the handling of bills of lading.



WILLIAM J. MULLIN

MR. MULLIN's railroad career began in 1880 when, at the age of seventeen, he was hired by the Pennsylvania Railroad as clerk on the Lewisburg-Tyrone Branch. At the same time Mr. F. P. GUTELIUS, now Resident Vice-President of the Delaware and Hudson Company at Montreal, Canada, was living at Millinburg, where he worked in the carriage and sleigh shop of his father. During the day Mr. GUTELIUS brought many consignments of freight to the station to be shipped to all parts of Pennsylvania. Through these contacts, a strong friendship sprang up between the two boys. Upon completing his course in the local schools, Mr. GUTELIUS attended Lafayette College and later

was sent west by the Pennsylvania as Division Engineer under Mr. L. F. LOREE, then Engineer Maintenance of Way. MR. MULLIN continued to work on the Philadelphia and Erie Division and for a time he saw no more of MR. GUTELIUS. During the early eighties MR. MULLIN became re-

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chief agent, working at practically every station between Williamsport and Harrisburg.

Then came the greatest disaster in the history of the State of Pennsylvania, the Johnstown Flood of 1889. During the two days before the flood three inches of rain fell. The streams feeding the Susquehanna poured a raging torrent of water into the river. In the following twenty-four hours practically every railroad bridge between Clearfield and Harrisburg was swept out.

One of the most unusual incidents of the flood occurred at Lewisburg where a train of loaded coal cars was put on a covered wooden railroad bridge to prevent its being carried away. Despite this measure it was washed out. One span, carrying five or six loaded gondolas, floated downstream and knocked out a span of the bridge at Selinsgrove Junction, where MR. MULLIN was then employed.

In July, 1897, he was transferred from the Operating to the Traffic Department, being located at Scranton as Solicitor for the Pennsylvania Railroad. His territory included Pennsylvania, Eastern New York, and Western New England. Every year he spent three months in the general offices at Williamsport making up freight tariffs, an experience which proved invaluable to him and fitted him for the responsibilities placed upon him in later years.

MR. MULLIN was constantly thrown into contact with representatives of the Delaware and Hudson and, on September 1, 1903, he was employed by our company as Southern and Western Agent to reorganize and enlarge the only off-line Delaware and Hudson agencies then existing, at Pittsburgh and Philadelphia. This work completed, he came to Albany as Industrial Agent. In February, 1905, MR. MULLIN became Assistant to Vice-President in charge of Coal, Coke, Milk and Express. At that time the Traffic Department's main efforts were being directed to the enlargement of bituminous coal and milk shipments. A Milk Department was organized and a business which then amounted to less than \$40,000 annually is now a million dollar a year enterprise.

On March 1, 1907, MR. MULLIN became General Traffic Manager and proceeded to gradually strengthen the Delaware and Hudson traffic organization, establishing new off-line agencies as traffic possibilities warranted. He continued in this position until October 1, 1928, when he retired. At that time the off-line traffic offices included agencies in Philadelphia, Pittsburgh, Montreal, Boston, Buffalo, Chicago, St. Louis, Detroit and New York. The present traffic organi-

zation is made up largely of men who received their training under MR. MULLIN.

While in Ottawa attending a conference in 1911, MR. MULLIN and two other men went out to lunch together. During the conversation which followed MR. MULLIN became curious when he learned that one of his companions was a MR. GUTELIUS. With the slim hope that he might know him he asked if he knew anyone in Pennsylvania by that name. The man replied that he himself was from Millinburg. They then both realized, after thirty years, that they had been boyhood chums. MR. GUTELIUS was then, in 1911, General Manager of the Inter-Colonial Railroad.

MR. MULLIN is of the firm opinion that railroads will always be the mainstay of transportation. Busses, of course, are cutting in on the passenger business of the railroads and trucks are taking a share of the freight. Nevertheless, he feels that they will never be able to carry either passengers or freight in the great quantities or with the same speed as railroads.

Since his retirement MR. MULLIN has made his home in Florida, returning north only for short periods. For some time he has been one of the most ardent supporters of the Port of Albany on the Traffic Commission of which he now serves. Although retired, MR. MULLIN's chief hobby is his interest in common carriers, particularly rail transportation.

Manners

MANNERS are of more importance than laws. Upon them, in a great measure, the laws depend. The law touches us but here and there and now and then. Manners are what vex and soothe, corrupt or purify, exalt or debase, barbarize or refine us, by a constant, steady, uniform, insensible operation, like that of the air we breathe in. They give their whole form and color to our lives. According to their quality, they aid morals; they supply them or they totally destroy them.—*Burke*.

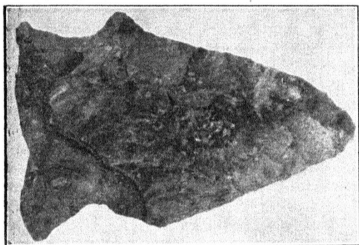
A chemist advertised a patent concoction labelled: "No more colds! No more coughs! Price \$1 a bottle."

A man who bought the mixture came back in three days to complain that he had drunk it all, but was no better.

"Drunk it all," gasped the chemist. "Why, man, that was an India rubber solution to put on the soles of your boots."—*Salstaff Bulletin*.

Bridge Builders Discover Burial Mound

***Relocation of Susquehanna River Bridge, Underpass at Highway Crossing,
Elimination of Curves in Track, Parts of Big Sidney Project***



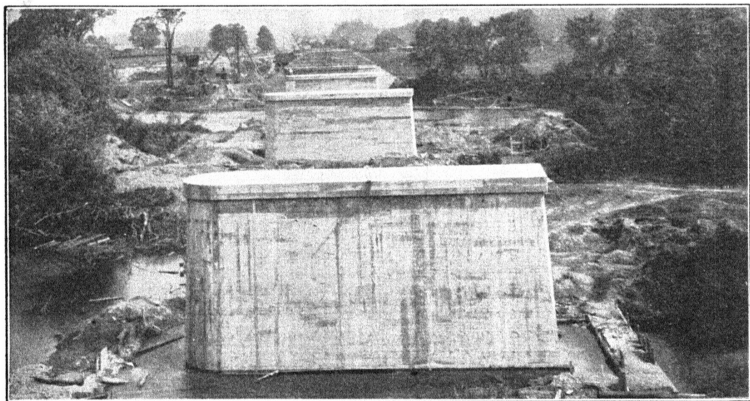
Flint Arrowhead Found at Sidney

HUNDREDS, perhaps thousands, of years ago, a tribe of Indians living on the approximate site of the village of Sidney, N. Y., buried its dead chieftans, warriors, squaws, and children in a huge mound overlooking the Susquehanna River, two miles below the present town. Along with the remains, hatchets, bows, arrows, pottery, grinding stones, pipes, and other effects thought necessary in the life in the "Happy Hunting Grounds" were interred.

Centuries passed and then, in 1866, the surrounding hills rang with the clang of hammers on steel as the Albany and Susquehanna Railroad's line pushed forward from Albany to Binghamton. A short stone's throw from the burial ground a wooden bridge spanned the Susquehanna River.

Seventeen years later, in 1883, a three-span wrought iron truss bridge was erected on the original masonry. The bridge was of what is known to engineers as light truss construction, designed with the idea of double tracking later by adding another light truss. This latter work was done in 1888, making it a three truss, double track bridge. With the increasing weight of cars and motive power it was deemed necessary to again strengthen the bridge in 1902 by adding still another truss, making two independent spans, one for each track. It was finally strengthened again in the year 1909, the masonry being extended to care for the changes in the ironwork. Both the original bridge built in 1883 and the extension in 1888 were of wrought iron.

Still greater locomotive weights of the present day rendered it again imperative to increase the



Freight Train on Present Main Line Shows in Upper Left

capacity of the bridge. Inasmuch as the original bridges had been strengthened to the limit, the only course left open to the Engineering Department was to build a new bridge. They found, too, that at the same time they could eliminate a sharp reverse curve just below the bridge, and improve the grade line. It was therefore decided to erect a new four-span bridge of the latest design about 100 yards east of the present structure. At the north end of the new stretch of track there is also a new culvert to take care of the track drainage.

The elimination of a state road crossing which formerly passed over the main tracks at grade a short distance north of the Susquehanna River Bridge was also included in the project. This underpass will be quite similar to the concrete and steel structures at Delmar and Slingerlands, N. Y., both of which were described in previous issues of *The Bulletin*.

The new river bridge consists of four spans, three of which have two trusses of the through-lattice type, the fourth span being of deck plate and girder construction. The truss spans of the old bridge are 156 feet long while those of the new bridge are 180 feet long and the deck plate girder span is 120 feet in length. A total of 4,000,000 pounds of steel is being used in the new bridge which rests on concrete piers in which 5,000 yards of material were used.

The track approaches the new bridge from the south through a cut from which a total of 35,000 yards of earth were removed, to a maximum depth of forty feet. It was here that the excavators found the great quantities of arrowheads, hatchets, broken bits of pottery, bows, pipes, and grinding stones, and other indications that the mound had formerly been an Indian burial ground.

In the new track, which is approximately two miles in length, 135 pound rail is being laid, secured to the ties by the new M. & L. tie plates, which are also being used in the new track construction now being done on the Saratoga Division.

The work, which was begun on July 1, is progressing ahead of schedule, and it is expected that the bridge will be ready for service in February or March of 1931. The construction is being done by S. W. Rae, contractor, of Pittsburgh, Pa.

Captain (frenziedly)—"All hands on deck; the ship's leaking."

Sleepy Voice (from a cabin)—"Aw, put a pan under it and come to bed."

Rules For Travelers

WELL, conditions are certainly better than they were one hundred years ago!

By the way of contrast to the comfortable traveling facilities which are now universal on the modern railroad, it is interesting to read—as reported by the *Jersey Central News*—a copy of the rules for travelers on the first railway of England, the Liverpool & Manchester, a document still preserved among the archives. The centenary of this railroad was observed in England early this spring.

"(1) Any person desiring to travel from Liverpool to Manchester, or vice versa, or any portion of the journey thereof must, twenty-four hours beforehand, make application to the station agent at the place of departure, giving his name, address, place of birth, age, occupation, and reason for desiring to travel.

"(2) The station agent, upon assuring himself that the applicant desires to travel for a just and lawful cause, shall thereupon issue a ticket to the applicant who shall travel by the train named thereon.

"(3) Trains will start at their point of departure as near schedule time as possible, but the company does not guarantee when they will reach their destination.

"(4) Trains not reaching their destination before dark will put up at one of the several stopping places along the route for the night and passengers must pay, and provide for, their own lodging during the night.

"(5) Luggage will be carried on the roof of the carriages. If such luggage gets wet, the company will not be responsible for any loss attached thereto."

Some Apples!

The jealousy supposed to exist between St. Paul and Minneapolis is aggravated and kept alive by the newspapers by such references as this:

A Minneapolis man who happened to be over in St. Paul the other day sauntered into one of the fruit stores, picked up a large melon and asked with a sneer:

"Is this the largest apple you have in St. Paul?"

"Hey!" bellowed the proprietor. "Put that grape down, and have your truck backed up to the door if you want an apple."

The Doctor and The Railroad

By DR. J. W. GHORMLEY

Extracts From a Paper Delivered at the Agents' Meeting, September 3, 1930

IT is often easier to understand today if we know what happened yesterday. Let us therefore turn back into the last century and recall what the doctor was doing for the railroad then.

The railroads are only 100 years old. Early railroading was very hazardous and it was soon necessary to have surgeons available to care for the injured. Fifty years ago about all the surgeons did for the railroad was to take care of the accident cases. My picture of him is one of amputating extremities, setting fractures, sewing up lacerations, etc. He was usually directly responsible to the Legal Department and was expected to testify for the railroad in cases which came to trial. Of course there was no opprobrium in being attached to the Legal Department; we are always glad to testify for them as all they ask us to do is to tell the truth.

I do not know of any half century in the history of medicine in which there has been such an advance as in the last fifty years. The causes of most of the infectious diseases have been discovered and in many cases their prevention or cure found. Aseptic surgery has developed and serious surgical operations are now safely performed. The teaching of medicine has undergone revolutionary changes.

A half century ago there were over 200 medical schools in this country. Medicine was then taught by having students listen to some venerable old doctor as he told them how he treated patients. Now there are only 87 medical schools, most of which are connected with universities, and medicine is taught as an exact science. The cults and the "pathies" are no more and any fact that has been proven is accepted as medical knowledge, the student having access to it. Although he does not learn as much "bedside manner" as he did, he learns more about diagnosing and treating disease. Thus he is able to give the patient much better care.

In addition to the fact that medicine has advanced the managements have also helped the railroad surgeons to become more useful to their companies. Ten years ago the Medical and Surgical Section of the A. R. A. was organized. This group, made up of the most part of Chief Surgeons, now meets annually to discuss railroad

problems. There are committees which suggest methods of eliminating occupational diseases and hazards such as creosote poisoning from ties, eye troubles among acetylene welders, etc. Others recommend standardized first aid packets, standard examination forms, treatment of fractures and many other activities. So it is a far cry from the isolated surgeon of yesterday doing whatever emergency surgery was necessary and the present day medical and surgical departments which delve into the various problems having to do with the health of the railroad employee.

The individual surgeon today takes care of the injured employee and tries to give him the best possible care. After he has recovered, it is his duty to get him back to work as quickly as possible. Prospective employees are examined to determine whether they have any defects which will prevent them from satisfactorily handling the duties they propose to assume. The surgeon also cooperates with the Safety Department in trying to decrease the number of accidents. Injured passengers are seen and an attempt made to take care of their injuries. In this way they are made to feel that in those cases where the company is responsible it is anxious to render whatever service is possible.

During the past four or five years the most important subject discussed at the Medical and Surgical Section meetings has been the periodic examination of employees. For twenty or thirty years railroad companies have found it desirable to check periodically, usually every two years, the vision, color perception, and hearing of all their employees who have to do with train operation. For the past several years it has been recommended that these men be examined more thoroughly.

The old idea of public health was to stop epidemics after they were started. The present idea is to prevent them from starting. Preventive medicine has done its best work on children and has greatly lessened the mortality rate. It now proposes to practice upon the adult.

The idea of a periodic health examination was first formally expressed by Dobell in England in 1870. Gould advocated the idea in this country in 1900. It was not until the late war that the

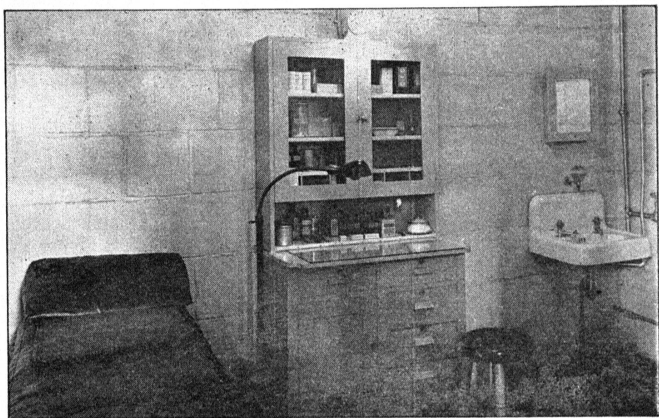
matter was forcibly brought home to the majority of people of this country. Then it was found that 38 per cent of all those examined for the draft had some defect which would disqualify them.

The simile is often made between the machine and the human body. It is well known that every engine, every car, and every mile of track is inspected daily to detect any defect which might result in serious accidents. The lesson seems obvious as the human machine is the greatest machine of all. Why should it not be checked periodically?

That is what is meant by the periodic health examination. Unfortunately the analogy is not a complete one because of the fact that a defective part of a machine can be replaced with one which

Fisk, medical director of the Life Extension Institute of New York, has the following to say regarding the man who is conscious that he is enjoying good health:

"The man who is sound and healthy steps out on life's highway with a song in his heart, looking forward eagerly to life's adventure, curious to see what is around the next corner. To him life's struggle is stimulating, attractive. The man out of health fears every turn in the road. There is no song in his heart, but a continual flutter of apprehension. He avoids rather than seeks life's struggle. Good health is the foundation not only of business success, but of successful living. Its influence on personality is profound, and in urging that one's health assets be examined and



Typical First Aid Room—Oneonta Roundhouse

is good. This is not true of the human body. In the first place, the human machine attempts at all times to make its own repairs. Yet a great number of defects are irremediable; worn out parts cannot be replaced.

This brings home the lesson that it is with the young that the greatest good may be realized from a periodic examination. We cannot make over a worn out sixty-year old employee. Possibly we can advise a thirty-year old man so that he will not be worn out in thirty years more.

It is possible to examine the body closely to look for defects. If an individual is found to be perfectly well and has no physical disability, how happy he is made to know it! Eugene Lyman

improved to the highest degree we are seeking to accomplish that which will make life more colorful, more satisfying, and in every way more livable for the great mass of people."

Unfortunately, in the large percentage of cases it is necessary that much advice be given which the individual may find very difficult to follow. People are proverbially procrastinators. They delay in consulting a physician when they have some symptoms which should be investigated. Many also delay in carrying out advice which is given them in order to improve their health. A large percentage of individuals complain that they do not have sufficient money to pay for the improvement of their known defects. Such things

as eye examinations and teeth repairs cost more than they are willing to give. A great number of people, too, simply do not have the will power to give up bad habits which they know are detrimental to their health.

A report on a recent meeting of the British Medical Association in Winnipeg contained an item which stated that the periodic health examination could do much harm. Thereupon, all the newspapers said that all the advice the doctors had been giving for the last twenty years had been discarded, that they need no longer diet, that they were better off without an examination, etc. Of course it is foolish to think that people should no longer diet but it is important that the result of examinations should be properly interpreted.

Another disadvantage of some examinations is that they are done too hurriedly and minor things and incipient disease are overlooked. A man walks into a doctor's office and asks for an examination. The doctor slaps him on the back and says, "Why, you're all right, old man. What are you worrying about?" And all the time possibly he has some condition about which it would be worth his while to know.

Some people say, "What's all this excitement about wanting to live to be old? When my time comes I will be ready to go." "Eat, drink, and be merry for tomorrow we die," is the cry of others. However, there are very few people who would not like to have their lives prolonged provided they are well and happy.

Most lay people regard the periodic health examination as a very valuable procedure and the majority of the medical profession feels the same way. Insurance companies find that it lessens their mortality. Some years ago the Metropolitan Insurance Company offered the privilege of a physical examination to any of its insured. It found that, after ten years, of the 6,000 originally examined, 513 were normally expected to have died, but only 421 had. Or, expressed differently, for every 100 deaths among those not examined there were only 82 deaths among those regularly examined. In other words, the Insurance Company invested thirty thousand dollars and received back sixty thousand by the increase in premiums and decrease in claims.

I have attempted to show that a periodic examination is of value if properly given. Three years ago The Delaware and Hudson Company began to offer to its employees a voluntary physical examination. The Management, aided by suggestions from the Chief Surgeon, Dr. ELTNO, felt that the examination should be voluntary and for the employee's benefit. Thus we do not have on

our railroad a short check-up of the train service people for the benefit of the company, but we do have thorough examinations which are designed primarily for all the employees. The company should profit from it and eventually both purposes will be served, that is the check-up of the train service men and a helping of all employees.

I want to discuss briefly some of the conditions found at the examinations of the Delaware and Hudson people and also to glance over claims paid to the Delaware and Hudson employees under the group insurance and analyze them in the light of the periodic health examination.

Let us first consider the faulty conditions which are found when the examinations are made. The most common faults are minor ones. Probably the most common error of people, those doing office work especially, is that they get insufficient exercise. Very few people can excuse themselves for not getting out and getting a certain amount of exercise daily.

Another defect found very frequently is the lack of proper care of the teeth. Bad teeth have several very detrimental effects upon the health of individuals. They may contain foci of infection which may result in rheumatism, heart and kidney disease, and other ills. If the teeth are unhealthy proper mastication of the food may be difficult. Why cannot people go to their dentist every six months or a year and have their teeth put in first class condition?

Improper weight is another very common disability. Young people, especially girls, have a tendency to be underweight and therefore seem to be more susceptible to diseases of the lungs, etc. Older persons tend to be overweight and therefore more susceptible to diseases of the heart, kidneys, etc. It is very difficult to convince a man who is fifty pounds overweight that he should attempt to reduce. He laughs and says his father was built just like he is and that he always got along pretty well. He often forgets that his father died at the age of fifty-four from apoplexy.

Every group of actuary figures yet assembled shows that the circulatory diseases are more common in those overweight. Weakened hearts, high blood pressure, early tuberculosis of the lungs, kidney disease, and other of the more serious diseases are found less frequently. But when they are discovered it is more important as it sometimes means very radical changes in the way of living of a man of fifty or sixty years. However, we urge people in early life most emphatically to change their ways if we feel that they are heading toward certain disease.

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The
Delaware and Hudson Railroad
CORPORATION
BULLETIN

Office of Publication:
DELAWARE AND HUDSON BUILDING.
ALBANY, N. Y.

PUBLISHED semi-monthly by The Delaware and Hudson Railroad Corporation, for the information of the men who operate the railroad, in the belief that mutual understanding of the problems we all have to meet will help us to solve them for our mutual welfare.

Permission is given to reprint, with credit, in part or in full, any article appearing in THE BULLETIN.

All communications should be addressed to the Supervisor of Publications, Delaware and Hudson Building, Albany, N. Y.

Vol. 10

November 15, 1930

No. 22

They Quit

EVERY successful business man knows the secret of success," says John H. Wright, editor and publisher. "Yet if a reporter asked one hundred men to answer the question, 'What is the secret of your success?' not ten in the hundred would mention the one big thing that lies behind their business success. Perhaps not five, or even one, would mention it."

Sustained effort is the key to success, says Wright.

"At this moment," he continues, "I cannot recall the name of a single man who did not owe his success to sustained effort. I could name a dozen men with brains who are business failures because they are not able to sustain their efforts. These men possess everything necessary for business success. They are healthy. They are clever. But, they cannot sustain their efforts long enough in any one line of business."

Wright has revealed clearly the secret of business success, *provided* a man is endowed with moderate ability, confidence, and a sense of proportion. Success is rarely contingent on a single quality. Lack of sustained effort eliminates many men, but no effort however sustained, can save a fool from the consequence of his follies.

Nevertheless, let young men remember Wright's advice. Walk down a business street or the corridor of an office building. Observe the names on the doors and the identification under their names. One man is a patent attorney; another is a coffee broker. Both spent a lifetime in one occupation. Each is an expert in his specialty. Knowledge was gained through years of study, observation,

and experience. Each applied himself to a narrow field and mastered it. The automobile, electric refrigerator, and radio have been invented and marketed since the broker first smelled roasting coffee, but he resisted the temptation to change his pasture. If he told you the truth he might say, "When I started in this business I was the dumbest boy that ever tasted coffee, but the bright boys all quit to try new fields. By this process I eventually became the best because I was the oldest and had the most experience. I didn't eliminate the competition. The other players wearied of this dull game, and quit."

As Wright suggests, that's the secret of the success of many men.—*Through the Measles.*

After Thoughts

AMONG the unpleasant things which accompany an accident are the afterthoughts, particularly when the injury leaves permanent disability. These thoughts are as unpleasant as the physical pain caused by the injury, and it doesn't comfort a fellow to know that he was to blame.

It's mean to rub it in after someone is hurt. The injured person has had enough punishment. But sometimes it is hard to keep from doing it when a bullheaded chap won't pay any attention to friendly advice and suffers the consequences. It is particularly irritating when he blames his trouble on "hard luck."

Why give anybody a chance to say "I told you so?" A little forethought will save a lot of unpleasant afterthoughts.—*Spang Standard.*

Applying Spurs to Ourselves

AT a recent luncheon, a speaker suggested that we ask ourselves what changes we would make if we were suddenly discharged from our present job, and were required to make good in an identical job elsewhere.

"Why not imagine that you are out of a job right now?" he said. "When you go back to your office, assume that you are a new man at your desk, and that you are replacing the man who left for lunch an hour before. What about the desk? The unfinished work on the desk? What about the routine of your predecessor? What can you do that will make the company glad that you were hired?"

An executive of a corporation confessed one day that he constantly asked himself what he would

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What An Inventor Thinks About

Visit to Philadelphia Centennial Exposition Inspired the Late Elmer A. Sperry to Engage in a Remarkable Career of Invention in Many Fields

TO those of our readers who have an inventive turn of mind the story of the life of the late Elmer A. Sperry, as it appeared in a recent issue of *Mechanical Engineering* may prove a source of inspiration, and it should be of interest to many who are not of the inventive type.

What may prove to be one of the greatest of his inventions, and one on which he was working at the time of his death, is the machine for detecting hidden flaws in track rails. A description of this machine appears in *The Bulletin* of September 15th, 1930.

"Elmer Ambrose Sperry, past-president of The American Society of Mechanical Engineers, engineer, and inventor, whose name will always be associated with the development of devices involving the gyroscope, died at St. John's Hospital, Brooklyn, N. Y., on June 16, 1930, as a result of complications which set in after he had practically recovered from an operation.

"Mr. Sperry was born in Cortland, N. Y., on October 12, 1860. He was the son of Stephen Decatur and Mary Burst Sperry, and a descendant of Richard Sperry who emigrated from England in 1634 and who, in 1666, at New Haven Colony in Connecticut, secreted on his farm in what is now known as Judges Cave, Whalley, Goffe, and Dixwell, three of the regicide judges who had condemned King Charles I to death.

"Mr. Sperry attended the State Normal School at Cortland, and spent the college year of 1879-1880 at Cornell University. In 1876, through arrangements made possible by the Y. M. C. A. of Cortland, N. Y., he visited the Centennial Exposition in Philadelphia, and here received an imperishable inspiration for a career of invention. To this experience, which introduced him to engineering and determined his life's work, he paid magnificent tribute by leaving in his will the sum of \$1,000,000 to the Y. M. C. A.

"One of Mr. Sperry's early contributions to the electrical industry was an improved form of Gramme dynamo for arc lighting and an arc lamp for use with the machine. He secured the adoption of lamp and dynamo, and in 1880 founded the Sperry Electric Company of Chicago in order to manufacture these and other electrical appliances.

"In 1883 he erected on Lake Michigan an elec-

tric beacon 350 ft. high, the highest in the world, and equipped it with 40,000 candlepower of arc lights.

"In 1888 he was the first to build electrical mining machinery. His machines have been widely used, and started a distinct advance in mining.

"About 1890, he became a designer of electric street-railway cars and soon founded the Sperry Electric Railway Company of Cleveland, Ohio, to build them. In 1894 the patents were purchased by the General Electric Company. He then designed electric carriages and manufactured them for several years. With a storage battery invented by him he was able to drive an electric carriage the remarkable distance of 100 miles. In 1896 he drove the first American-built automobile in Paris. A number of his electric carriages were sold there.

"Electrochemistry also interested Mr. Sperry. He originated a process for caustic soda and bleach which still continues to be used extensively; a second large plant has recently been put into operation. Under other Sperry patents the National Battery Company was organized. He invented a detinning process for recovering tin from old cans and scrap, and an electrolytic process for producing white lead from wastes of copper mines. He invented machinery for producing fuse wires. On this invention the Chicago Fuse Wire Company was established.

"In 1918 Mr. Sperry announced his high-intensity arc searchlight, having a brightness 500 per cent greater than that of any light previously made. It has high actinic value and has made possible indoor photographing of motion pictures without the sun. It is a great aid in the navigation of air and water, and is the standard searchlight for the principal armies and navies of the world.

"Mr. Sperry devoted much thought, energy, and money to the development of compound internal-combustion engines using low-grade fuel oil. His compound Diesel engine, for a given horsepower, has about one-fifth the size and weight of the ordinary types.

"About 1896, Mr. Sperry turned his attention to making practical use of the principles underlying the toy known as the gyroscope. This amaz-

ing device appears to have been invented some time in the eighteenth century. It was studied scientifically by Foucault, a French physicist, about 1851. The gyroscope is a wheel with a heavy rim, so mounted that it can spin very rapidly on its axis. When friction is reduced to a minimum and the method of mounting and suspending eliminates restraint by other objects or external forces, the gyroscope tends to point its axis in a definite direction and to return to that direction if disturbed. Possibilities of great usefulness were perceived. By diligent, tedious, and expensive investigation and great ingenuity, overcoming many obstacles, Mr. Sperry skilfully combined electrical and mechanical elements into successful gyroscope compasses and stabilizers for ships and airplanes."

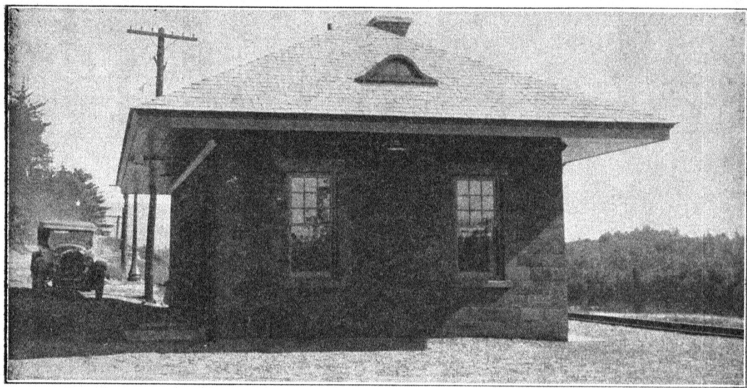
Opportunities

OPPORTUNITIES, the best, are everywhere. Yet they are not running around labeled as such. Whenever they are, they're usually fake stock advertisements.

One of the best ways to discover genuine opportunities is in thinking lots about your work, planning it carefully, there's always an improvement nobody has discovered yet.

The steam engine, the telegraph, all great inventions, were made thus. It's the way of all progress. And those promoting progress are the ones that reap the big rewards.—*Exchange*.

Ray Brook's New Station



ON December 9, 1928, the Delaware and Hudson Railroad's station at Ray Brook, N. Y., on the Chateaugay Branch, was destroyed by fire. This station was important in that it served the New York State Hospital for Incipient Tuberculosis. In its place the Engineering Department has erected a new and modern station.

The new depot is built of concrete blocks, resting on a concrete foundation, and is covered by a slate roof. Space is provided for a ticket office, waiting room, baggage room, and a United

States Post Office. It is equipped with steam heat, electric lights, and modern toilet facilities, and is one of the most up-to-date stations on the railroad property.

The Hospital patients and authorities were so highly pleased with the finished station that they have offered to take care of the beautification of the surrounding grounds by planting trees, shrubs, and flowers.

The structure was erected by J. J. Fitzpatrick, a Plattsburg contractor.

The Doctor and the Railroad

(Continued from page 345)

Let us look for a moment at the group insurance claims paid. During the year 1929, 186 Delaware and Hudson employees died. Eighty-seven of these succumbed to some disease of the circulatory system. Fifty years ago it was denied by many medical men that the infectious diseases were caused by bacteria and they they could be prevented by giving vaccine or antitoxin. Yet at the present time we are living in an age when small-pox is very seldom seen. The reason for this is the prophylactic vaccination. The incidence of typhoid and diphtheria has been greatly reduced and almost stamped out by similar preventive health measures. Most everyone today looks upon these diseases of the circulatory system as degenerative diseases and a necessary accompaniment of old age. Who knows but that some day, just as the infectious diseases were largely controlled, these so called degenerative diseases may also become amenable to treatment?

Seventeen met an accidental death, some of these while the employees were on duty, others when they were off. The Safety Department works constantly to prevent accidents while they are at work but they cannot take care of them when they get out in automobiles when off duty.

During the same year 1,202 health insurance claims were paid by the Metropolitan Insurance Company to Delaware and Hudson employees. Five hundred and seventy-five or almost fifty per cent of these claims were paid to those suffering from cold, grippe, influenza, tonsillitis, and other diseases of the respiratory tract. Undoubtedly a certain number of these colds were preventable. If individuals kept themselves in first class physical condition, obtained plenty of exercise, fresh air, and sleep, they would be much less susceptible to these attacks.

There are several researches going on and millions of dollars being spent at Baltimore, New York, and other places in an attempt to find out what is the cause of the common cold. We look forward to a day when these researches may bear fruit none will be excused for losing time because of having a cold.

One hundred and thirty-one of the claims or about eleven per cent were paid because of diseases of the circulatory system. Diseases of the heart, kidneys, and blood vessels are therefore not only the chief cause of death among our employees but they are second as a cause of disability.

Eighty claims or about seven per cent of the total were paid because of disorders of the brain

and nervous system. Such disturbances are so prevalent that they are often called the American Disease or Americanitis. How much good might be accomplished if people who were going at too fast a pace or who were trying to do too much could be influenced to slow down! I am not urging Delaware and Hudson employees not to do so much work, but I am urging them to work hard when they work and seek good recreation when they play. Seventy-six or about seven per cent of the claims paid were due to disorders of the digestive system. A great number of these were undoubtedly due to bad eating habits, such as eating too much, eating too rich food, eating irregularly, etc.

I could go down through the remaining 340 claims paid and point out that if the individual had only been willing to take better care of himself or if he had known about coming disease, he might have prevented at least a part of his trouble.

I have attempted to give you an outline as to the present relationship of a company surgeon to his railroad company. I have enumerated certain of his duties but I have especially tried to show you how the present railroad surgeon attempts not only to care for injured employees, passengers, etc., but also, having at his command the most up to date measures of preventive and curative medicine, attempts to advise those individuals who seek that advice how they may live longer, more useful and happier lives.

Carbon Monoxide Kills!

R. B. RUSHING, Augusta, Maine, read this warning in various National Safety Council bulletins. He pondered.

Swarms of enormous rats inhabited his combination barn and garage. Traps they had evaded; poisons of guaranteed lethal properties had failed to diminish their numbers.

He stopped up all the holes in the building with the exception of one large opening. Into this aperture he placed one end of a rubber hose, the other end he tied over the exhaust of the family Ford.

Then he closed the windows and door and turned on the engine, stepping outside, of course, before starting the death dealer. After 20 minutes had elapsed he opened the barn and stopped the engine. He then withdrew the pipe from the rat hole. Not a squeak did he hear, and since that time he has not seen or heard a rat!

Applying Spurs to Ourselves
(Continued from page 346)

do if he unexpectedly found himself in competition with his own company. What changes in policy and product would he make, in order to get business for the new company and away from the old company? By looking at his business from this point of view, the executive said that he was able to find the weaknesses in his organization, and correct them.

Did you ever notice a man on the first day he takes up new work? He rises early, shaves clean, and wears spotless linen and a freshly pressed suit. He feels and looks fit. He recognizes that he will be judged by what he does today, and not by what he did yesterday.

If all of us could get something of the enthusi-

asm, freshness, and vigor of the new competitor or the new worker into our daily routine, we would quickly break records.

We know what should be done, but we do not always show the energy to do it. Often we are half asleep as we start work. Unless we can apply spurs to ourselves, we may be retired from competition and be compelled to start anew.

What is said here about work is equally appropriate to social and family relationships. Most of us impose on the good nature of our friends and our family. Often we are more courteous to waiters than to our wife, and because she tolerates us is not a good reason for our conduct. Why not treat the house-worn wife as though she were a new one just arrived on the lot, as movie people say.—*Through the Meshes.*

Green Island Switching Crew of 1907



Trainman Gallascher, Fireman "Pard" O'Donnell, Trainman John Harmon, Trainman Charles Hoffman, Engineman Tom Hardy, and Yard Conductor Charles Burtis.

Clicks from the Rails

Cat Rides Rods

The Cedar Rapids branch of the Illinois Central can claim the distinction of being the only railroad that has operated a train with a feline passenger hanging to its running gear, according to the Manchester (Iowa) Press. Not long ago when the local from Central City, Iowa, pulled into Cedar Rapids, the crew discovered a contented tomcat perched snugly on one of the trucks, on a train which had made the entire trip of over 20 miles at an average speed of 30 miles per hour. The crew took Thomas back to his home town on the return trip, none the worse for wear, debating whether sharp claws or a well-developed sense of balance were of most assistance to the animal in preventing his joining the ranks of human passengers who have unsuccessfully attempted to "ride the rods."

Europe's Fastest Train

The fastest train on the European Continent was inaugurated May 15, 1930, making a daily nonstop run in each direction between Paris, France, and Liege, Belgium, a distance of about 230 miles, in exactly four hours, or an average of fifty-eight miles per hour for the trip. The distance between Paris and the Belgian border, 150 miles, is covered at a speed of approximately sixty-seven miles per hour.

Only Broad Gage Engine

"Tiny"—the only complete broad-gage engine in existence—is one of the interesting relics in the museum maintained by the Great Western (Great Britain). Built in 1868, it was recently rescued at the Newton Abbott locomotive depot where, with one of its flanged wheels removed and a pulley wheel substituted, it has for years done duty as a spare stationary engine working the pumps in the boiler house. Today, "Tiny" occupies a prominent position on the Newton Abbott station platform, right in the middle of the last section of the Great Western main line to be converted from the broad to the "narrow" (4 feet 8½ inch) gage, and stands as a relic of this almost forgotten era of British Railways.—*Railway Age*.

Lackawanna Electrified

Electrical operation on the Delaware, Lackawanna, and Western between Hoboken and Montclair, N. J., was inaugurated on September 2, when a 10-car train carrying Lackawanna officials and their guests made the initial trip between these two points. Persons making the journey included railway officers, officials of towns along the route, and newspaper men. Among the group of approximately 300 guests was Thomas A. Edison.

First Sleeping Car

In a recent letter to the *Railway Age*, E. M. Bywell, Secretary and Curator of the Railway Museum at York, England, says: "In 1842 the London & Birmingham Railway built a coach especially for Queen Adelaide, wife of William IV (of England). The coach was quite small but at the end was a box-like extension built to give extra length so that Her Majesty might lay down. The coach attracted much attention at the Railway Centenary Exhibition at Darlington, in 1925."

Napoleon and Wellington

If time has not erased the bitter feeling which once existed when Napoleon and Wellington faced each other in the battles which made European history, they may still be carrying on silent warfare in Missouri where, across 4.6 miles, they stare at each other. Both are stations on the Missouri Pacific between Jefferson City and Kansas City. It might also be of interest to know that they can never again meet at Waterloo, which is located in a neighboring state, Iowa.

Hears First Train Whistle

Mrs. Paddy Mires, who has lived on her place two miles southeast of Christoval, Texas, for 54 years, has heard the scream of the panther and the cry of the Indian, but it was only a few days ago that she heard the whistle of a passenger train. She heard this when the first train was run over the Santa Fe's newly-completed line from San Angelo to Sonora.

Youngest 50-Year Man

The *Railway Age* announces that it has discovered a man who is undoubtedly the youngest 50-year railroad veteran in the country. He is Tony Pacelli, aged sixty-one, Track Foreman of the Pennsylvania Railroad at Chicago, Ill., who entered the service of that company on March 1, 1880, fifty years ago, as water boy.

Old Bell Discarded

With the construction of the Pennsylvania's new passenger terminal in Philadelphia, an old bell, which daily called the men to work in the shops, will be discarded. It hangs in a cupola of the master mechanic's office at the West Philadelphia Shops. The bell was cast in Sheffield, England, in 1864, by the Naylor, Vickers Company. It will be saved by the Pennsylvania in Philadelphia as a memento of the company's early history.

Runs Fiery Gauntlet

"Like a movie thriller a Southern Pacific passenger train dashed over a burning trestle east of Globe, Arizona, recently to defeat supposed plans of three unidentified men to hold it up," read a news dispatch recently published.

It continues, "The men were seen to run from the bridge just before the train arrived. The engineer, seeing the fire had not made much headway, opened the throttle of his locomotive and dashed across the bridge arriving on the other side safely."

Railroaders Are Best Singers

From among seven men's choruses, representing five different states, the Illinois Central Male Chorus of Chicago was unanimously chosen for first place in a recent contest sponsored by the Chicago Tribune and twenty-seven co-operating newspapers and known as the Chicagoland Music Festival. Each member of the chorus was presented with a gold medal. The last night of the festival was celebrated in Soldiers' Field, Chicago, and drew 150,000 persons, said to be the largest audience ever assembled for a musical program.

Let Us Be Grateful



LET us be grateful this Thanksgiving Day that we have friends who believe in us, that we have loved ones to whom our home coming brings comfort and joy and who, regardless of our manifold and manifest shortcomings, still see in us the sort of person we would like to think we are.

Let us be grateful for the successes we have had, for the memories that we treasure, for the opportunity to profit by the mistakes we have made, for the day of renewed endeavor that dawns for us tomorrow, and finally, for the mellowed philosophy of life and the revised standard of values that the years so mercifully bring.

—Selected.